|   |                      |                         |  |              |                      |                          |                         |             | <del>- ;</del>                                      |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
|---|----------------------|-------------------------|--|--------------|----------------------|--------------------------|-------------------------|-------------|---|-------------------|--------------------------|------------------|-----------------|--|--|--|--|--|--|--|--|---------------------------------------|--|--|--|
| <b>EPA</b>  |                      |                         | United States Environmental Protection Agency Washington, DC 20460 Work Assignment |              |                      |                          |                         |             | Work Assignment Number 4-4  Other Amendment Number: |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
|   |                      |                         |  |              |                      |                          |                         |             |   |                   |                          |                  | Contract Number |  |  | Contract Period 01/01/2014 To 12/31/2017 |  |  |  |  |  | Title of Work Assignment/SF Site Name |  |  |  |
|   |                      |                         |  |              |                      |                          |                         |             |   |                   |                          |                  | EP-D-14-001     |  |  | Base Option Period Number 3              |  |  |  |  |  | Quality and Standards                 |  |  |  |
| Contractor  |                      | ,                       |  |              |                      | Specify                  | Section and pa          | ragraph o   | f Contract SOW                                      |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| SCIENTIFI   | C CONSULT            | ING GROU                | IP, INC, TH  | ŀΕ           |                      |                          | · <del></del>           |             |   | <u>.</u>          |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Purpose:  | X Work Assig         | gnment                  | Wor  |              |                      | ork Assignment Close-Out |                         |             | Period of Performance                               |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Work Assignment Amendment Incremental Funding   |                      |                         |  |              |                      |                          |                         |             |   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Work Plan Approval  |                      |                         |  |              |                      |                          |                         |             | From 01/01/2017 To 12/31/2017                       |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Comments:   |                      |                         | <del></del>  |              |                      |                          |                         |             | -   |                   | ***                      | <del></del> ;    |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| This WA is for continuation of quality and standards project that contains tasks to continue work towards |                      |                         |  |              |                      |                          |                         |             |   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| shepherding consensus-based standards and codes development in large buildings. Provide 1000 hours to     |                      |                         |  |              |                      |                          |                         |             |   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| prepare a workplan and budget.  |                      |                         |  |              |                      |                          |                         |             |   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Superfund Accounting and Appropriations Data X Non-S  |                      |                         |  |              |                      |                          | Non-Superfund           |             |   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Note: To report additional accounting and appropriations date use EPA Form 1900-69A.                      |                      |                         |  |              |                      |                          |                         |             |   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| SFO<br>(Max 2)  |                      |                         |  |              |                      |                          |                         |             |   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
|   |                      |                         |  |              |                      |                          |                         |             |   | ( <b>5</b> . )    | <b>6</b> % ( <b>5</b> %) | 04               |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| DCN (Max 6)   | Budget/FY<br>(Max 4) | Appropriat<br>Code (Max |  |              | Program El<br>(Max 9 |                          | Object Class<br>(Max 4) | Amou        | nt (Dollars)  | (Cents)           | Site/Project<br>(Max 8)  | Cost<br>Org/Code |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| . 1   | 1                    | 1                       | 1  | <del>,</del> |                      |                          |                         |             |   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| 1   | <del> </del>         | <del></del>             |  |              |                      |                          |                         | <del></del> |   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
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| 3   |                      |                         |  |              |                      |                          |                         |             |   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| 4   |                      |                         |  |              |                      |                          |                         |             |   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| 5   | <u> </u>             | <u></u>                 |  |              |                      |                          |                         |             |   |                   | J.,                      | l,               |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
|   |                      |                         |  | Auth         | orized Wor           | rk Assi                  | gnment Ceilin           |             |   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Contract Period:  | A T- 10/01           |                         | /Fee:  |              |                      |                          |                         | L           | oe: 0   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| 01/01/2014 To 12/31/2017 This Action:   |                      |                         |  |              |                      |                          |                         |             | 1,000   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| This Action:  |                      |                         |  |              |                      |                          |                         |             | 1,000   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
|   |                      |                         |  |              |                      |                          |                         |             | 1,000   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Total:  | <u>·</u>             |                         |  | Morl         | k Plan / Co          | net Feti                 | mate Approva            | ale         |   | -                 |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Contractor MP Da  | tód:                 |                         | Cost/Fe  |              | K I Iaii / Oc        |                          | Thate Approve           | _           | LOE:  |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
|   |                      |                         |  |              |                      |                          |                         |             | LOE:  |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Cumulative Approved: Cost/Fee   |                      |                         |  |              |                      |                          |                         |             |   |                   | <u> </u>                 |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Work Assignment I   | Manager Name         | Janise 1                | Palmer   |              |                      |                          |                         |             | Branch/Mail Code:                                   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
|   |                      |                         |  |              |                      |                          |                         |             | Phone Number: 202-343-9921                          |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| (Signature) (Date)  |                      |                         |  |              |                      |                          |                         |             | FAX Number:   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Project Officer Name Annette Johnson  |                      |                         |  |              |                      |                          |                         |             |   | Branch/Mail Code: |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
|   |                      |                         |  |              |                      |                          |                         |             | Phone Number: 202-343-9489                          |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| (Signature) (Date)  |                      |                         |  |              |                      |                          |                         |             |   | FAX Number:       |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Other Agency Official Name Janise Palmer  |                      |                         |  |              |                      |                          |                         |             |   | Branch/Mail Code: |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
|   |                      |                         |  |              |                      |                          |                         |             | Phone Number: 202-343-9921                          |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| (Signature) (Date)  |                      |                         |  |              |                      |                          |                         |             | FAX Number:   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| Contracting Officia   | wame Anto            | onio L.                 | Leathers   |              |                      |                          | د م                     | Ĺ           | Branch/Mail Code:                                   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| ( Intonio 2, Leathers 12/22/16  |                      |                         |  |              |                      |                          |                         |             | Phone Number: 919-541-2312                          |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |
| (Signature) (Date)  |                      |                         |  |              |                      |                          |                         |             | FAX Number:   |                   |                          |                  |                 |  |  |  |  |  |  |  |  |                                       |  |  |  |

# **WORK ASSIGNMENT**

CONTRACTOR:

Scientific Consulting Group, Inc.

CONTRACT NUMBER:

EP-D-14-001

WORK ASSIGNMENT NO:

IV-4

WORK ASSIGNMENT TITLE:

Quality and Standards for Healthy Buildings

### **WORK ASSIGNMENT MANAGER:**

Name:

Jani Palmer

Division:

Indoor Environments Division (IED)

Mail Code:

6609T

Address:

1200 Pennsylvania Avenue, NW

Washington, DC 20460

Phone:

(202) 343-9921

LEVEL OF EFFORT:

hours

**PERIOD OF PERFORMANCE**: 01/01/2017 through 12/31/2017

#### I. **BACKGROUND**

Title IV of the Superfund Amendments and Reauthorization Act of 1986 (SARA) gives EPA broad authorization to address indoor air quality. The Indoor Environments Division (IED) is responsible for implementing national policies on indoor air pollution and protecting the public from related health impacts, such as radon, childhood asthma, environmental tobacco smoke and more.

Public demand for knowledge about indoor environmental problems, including their health risks and the means by which human exposure can be reduced, has been fueled by a growing body of scientific information confirming the adverse health impacts of radon and other indoor pollutants. The Radon Program of the Office of Radiation and Indoor Air (ORIA) in the Environmental Protection Agency (EPA) recognizes the need for a variety of audiences to understand these risks and to be informed about available methods risk reduction. As a voluntary program, two main objectives of the Radon Programs are disseminating information and conducting education and outreach activities via meeting and conferences that inform a broad range of constituents; these being the general public, building design, construction, and management professionals, private sector diagnostic, and mitigation firms, industry associations, environmental researchers, and experts, indoor environmental educators. EPA program partners. public health, and advocacy organizations, health practitioners, and environmental health officials at Federal, State and local levels.

Contractor support is required to ensure that appropriate and effective product design and revision, issue research and analysis, and meeting and conference support are received by the EPA Radon Program in a timely and cost-effective manner.

In carrying out support activities under this work assignment, the contractor is to refrain from either developing or interpreting EPA policy, and is to communicate only those policies conveyed by EPA for dissemination to customers. Contract personnel are to identify themselves in all dealings with the public (written and oral) as contractors to EPA who are providing an information distribution service. Finally, the contractor shall conform to all requirements regarding printing and duplication materials as defined in Title 1 of U.S. GPO Government Printing and Binding Regulations, No. 25, November 1987.

In meeting the requirements of this work assignment, the contractor shall be in a support role and will NOT be involved in the development of EPA policy, nor in any other activity that is an "Inherently Governmental function."

This work will be completed in accordance with the Information Quality Act/Information Quality Guidelines, and the Environmental Protection Agency's peer review guidance, as required. The links to these guidelines are: http://www.epa.gov/quality/informationguidelines/index.html.

#### II. TASKS

# Task 1 Provide Budget and Technical Approach

As needed and requested by WAM, the contractor shall provide technical approach with detailed information on the contractor's approach for accomplishing each project, including a schedule of deliverables, staffing plans, with statements of experience, estimated labor hours and cost. Technical approval and budget documents are required within 20 calendar days of the effective date of the work assignment.

No work shall begin on this Work Assignment until Technical Direction is received from the EPA WAM.

# Task 2 Guidance and Technical Meetings

The contractor shall attend no more than five in person meetings with EPA WAM to receive EPA guidance and discuss technical issues regarding all tasks indicated. Each meeting shall be approximately one to two hours in duration. The meetings will take place either at the contractor's office or at the EPA WAM's office (Washington, DC). Times and dates to be determined by WAM through technical direction.

#### **Deliverables:**

The contractor shall attend no more than five overall guidance and technical issues meetings with WAM. Upon direction by WAM, the contractor will prepare and deliver reports and/or summaries of meetings no more than two pages in length within five business days of the meeting.

# Task 3 Radon Program Meetings/Conferences Applicable SOW Sections: D2(c,l) & E2

Task 3a. Standards Committees. The contractor shall provide logistical and administrative support in planning and implementing up to 100 Radon Program meetings, workgroups, conference calls, webinars, etc. as directed. Support includes organizing meetings with standards committee members, keeping and sharing notes and minutes, and compiling comments. The subject of these meetings include radon resistant new construction, mitigation and testing in vapor intrusion projects, quality assurance for radon measurement systems, chamber intercomparisons for standards, testing and mitigating radon, measuring and mitigating radon in well water, and radon in green building standards.

The contractor shall provide conference fees, travel and lodging support for one staff member to participate in traceability and intercomparisons at the National Analytical Radiation Environmental Laboratory in Montgomery, AL by June 2017. No remuneration or honorarium or payment for services will be included.

Task 3b. Codes Meetings. The contractor shall provide logistical and administrative support in planning and implementing up to 20 codes meetings, workgroups, conference calls, webinars, etc. as directed. Support includes organizing meetings with stakeholders, keeping and sharing notes and minutes, and compiling comments. These meetings include conference calls and outreach to key stakeholders to gain support for state, local or tribal adoption of standards and codes and includes themes related to the crosswalk between radon, energy and ventilation codes.

The contractor shall provide conference fees, travel and lodging support for one technical expert to participate in the 2017 National Energy Codes Conference, July 17-20 in Pittsburgh, PA. No remuneration or honorarium or payment for services will be included.

The contractor shall provide conference fees, travel and lodging support for two technical experts to participate in the 2017 Annual ICC Conference, September 10-12, location TBD. No remuneration or honorarium or payment for services will be included.

The contractor shall provide travel and lodging support for two technical experts to participate in the Radon Codes Summit, in July, and location TBD. No remuneration or honorarium or payment for services will be included.

Task 3c. Cost and Risk Numbers. The contractor shall provide logistical and administrative support in planning and implementing up to five Radon Program meetings, workgroups, conference calls, webinars, etc. as directed for cost-benefit analysis and updated risk assessment.

Task 3d. Weatherization. The contractor shall provide logistical and administrative support in planning and implementing up to five meetings, workgroups, conference

calls, webinars, etc. as directed for the BARRIER plus Expanded (BEX) Study. Support includes organizing meetings with stakeholders, keeping and sharing notes and minutes, and compiling comments for the BEX study and other weatherization and radon/energy studies.

Task 3e. National Meeting. The contractor shall provide conference fees, travel and lodging support for two experts for participation as needed for training and radon technical expert representation at the Radon National Meeting, October 2-4, in New Orleans, LA. No remuneration or honorarium or payment for services will be included.

#### Deliverables:

The contractor shall provide support (e.g., agenda development, prospective participant identification and invitation, meeting minutes, and other similar activities) for up to 130 Radon Program meetings for codes, standards, cost benefit, risk assessment and weatherization, workgroups or conference calls upon notification from the WAM. Events will typically last from one to two hours.

Convening of a radon codes summit.

The Contractor shall schedule as directed by WAM and arrange for travel and lodging for technical experts to attend the following conferences or meetings:

- Intercomparison at the National Analytical Radiation Environmental Laboratory, by June, in Montgomery, AL.
- National Energy Codes Conference, July 17-20, in Pittsburgh, PA.
- Annual ICC Conference, September 10-12, location TBD.
- Radon National Meeting, October 2-4, in New Orleans, LA.
- Radon Codes Summit, July, location TBD.

**Task 4** Radon Research and Technical Analysis Applicable SOW Sections: B2(a,c,e,f), C2(a,b,e), D2(b,f,g,m,n,q)

Task 4a. Standards Committees Technical Support. The contractor shall provide research, technical writing and analysis services on standards subjects listed in Task 3a and new radon standards as determined by December. Current projects to consider are the following:

- RMS-SF Soil Gas Mitigation Standards for Existing Homes (near completion)
- CC-1000 New Construction of Large Buildings (near completion)
- ASHRAE 189.1 (radon sections only, near completion)
- MS-QA Quality Assurance for Radon Measurement Systems (currently in draft)
- MW Radon Measurement in Water (new standard)
- AlphaGuard Transfer Standard and International Intercomparison (new standard)
- CCAH 2013 New Construction of Homes (scheduled maintenance update)

Task 4b. Codes Technical Support. The contractor shall provide research, technical writing and analysis services on code changes that reduce radon risk, such as but not limited to, radon resistant new construction in the international residential and commercial/large building code, and themes related to the crosswalk between radon, energy and ventilation codes.

This task includes services to produce and deliver radon code educational sessions and informative radon codes documents to codes stakeholder audiences such as builders and building officials and to participate in radon summit and produce technical findings and next steps by July 2017.

Task 4c. Cost and Risk Technical Support. The contractor shall provide research, technical writing and analysis services on cost-benefit analysis and risk assessment. The nature of this service shall be identifying sources of information, obtaining, compiling, and performing quantitative and qualitative analysis of identified information, providing technical support and production of written hardcopy or electronic summaries, and finalizing white papers and manuscripts by September.

Task 4d. Weatherization Technical Support. One technical expert shall participate in up to 10 BEX project meetings as directed. The contractor shall provide research, technical writing and analysis services on weatherization and radon/energy studies such as, but not limited to, the BEX study by December.

#### Deliverables:

Research, technical writing and analysis for final production of standards by December:

- RMS-SF Soil Gas Mitigation Standards for Existing Homes
- CC-1000 New Construction of Large Buildings
- MS-QA Quality Assurance for Radon Measurement Systems
- ASHRAE 189.1 (radon sections)

Research, technical writing and analysis for draft production of standards by December:

- AlphaGuard Transfer Standard and International Intercomparison
- MW Radon Measurement in Water
- CCAH 2013 New Construction of Homes (scheduled maintenance update)

Production and delivery of radon codes educational sessions at the Annual ICC Meeting in September, Energy Codes Conference in July and Radon Codes Summit by July.

Production and publishing of two technical manuscripts in approved format based on the updated benefit/cost analysis and risk assessment by September.

Participation in BEX project meetings, and production and delivery of a presentation and/or webinar on weatherization updates by December.

Task 5. SCHEDULE & DELIVERABLES

| lask 5. | 5. SCHEDULE & DELIVERABLES                                |  |  |  |  |  |  |
|---------|---|--|--|--|--|--|--|
| Task    | Deliverable   | Due Date   |  |  |  |  |  |
| 1.0     | Prepare and deliver budget and technical approach         | Within 20 calendar days of the effective date of the work assignment   |  |  |  |  |  |
| 2.0     | Guidance & Technical<br>Meetings                          | January-September 2017- up to 5 meetings as directed by WAM  |  |  |  |  |  |
| 3.0     | Provide<br>Meeting/Conference<br>Support                  | 130 program meetings as directed. Attend Montgomery, AL laboratory by June 2017 Attend Energy Code Conference in July 2017 Radon Codes Summit in July 2017 Attend ICC Conference in September 2017 National Radon Meeting presentation and technical expert availability by October 2017   |  |  |  |  |  |
| 4.0     | Research and Analysis of radon topics/issues              | Delivery of energy code and summit educational sessions by July 2017  Delivery of ICC educational session by September 2017  Final manuscripts for cost/benefit and risk by September 2017  Research, technical writing and analysis for standards by December 2017.  BEX project meetings by December 2017.  BEX presentation by December 2017. |  |  |  |  |  |
| 5.0     | Master and an archive copy of all deliverables and drafts | December 31, 2017  |  |  |  |  |  |

# IV. GENERAL

The contractor shall provide the WAM with a master and an archive copy of all deliverables and drafts. Associated disks compatible with ORIA equipment (MS Word for basic reports and documents, PageMaker for those items which will be published

and .HTML format for those items which will be inserted in EPA's website, Excel or Access for spreadsheets and/or databases) must also be provided upon completion of the work assignment by December 31, 2017.

The contractor shall meet with the WAM at the contractor's or WAM's location of business or by phone once a month as indicated by the WAM by Technical Direction.

Final deliverables status report shall be submitted in hard copy with a master and archive copy in electronic form.